

WHAT IS CLAIMED IS:

1. A method for washing a gas turbine engine with a washing system,
said method comprising the steps of:
 injecting a first liquid into the engine to remove particulate matter; and
 injecting a second liquid into the engine to facilitate reducing a rate of
5 formation of particulate matter within the gas turbine engine.
2. A method in accordance with Claim 1 wherein said step of injecting
a first liquid further comprises the step of injecting a water-based cleaning solution
into the turbine engine.
3. A method in accordance with Claim 1 wherein said step of injecting
10 a second liquid further comprises the step of injecting an anti-static liquid into the
engine.
4. A method in accordance with Claim 3 wherein said step of injecting
an anti-static liquid further comprises the step of coating a portion of the engine with
the anti-static liquid to facilitate suppressing electrostatic attraction.
- 15 5. A method in accordance with Claim 3 wherein said step of injecting
an anti-static liquid further comprises the step of operating the engine to dry the
engine prior to injecting the second liquid into the engine.
6. Apparatus for a gas turbine engine, said apparatus comprising a
washing system comprising a pump in flow communication with at least one nozzle
20 and a reservoir, said washing system configured to inject a first fluid and a second
fluid into the gas turbine engine, at least one of the first and second fluids configured
to facilitate reducing a rate of formation of particulate matter within the gas turbine
engine.
7. Apparatus in accordance with Claim 6 wherein the first fluid is a
25 water-based cleaning solution.

8. Apparatus in accordance with Claim 6 wherein the second fluid is an anti-static liquid.

5 9. Apparatus in accordance with Claim 6 wherein said washing system further configured to inject the second fluid after the first fluid has been injected into the engine.

10. Apparatus in accordance with Claim 9 wherein said washing system further configured to inject the second fluid into the gas turbine engine after the first fluid has been injected into the engine and the engine has been operated.

10 11. Apparatus in accordance with Claim 6 wherein the gas turbine engine includes a compressor, said washing system further configured to coat the compressor with the second fluid.

15 12. A gas turbine engine washing system configured to reduce particulate matter within the gas turbine engine, the gas turbine engine including a compressor, said washing system comprising: a reservoir, a nozzle in flow communication with the reservoir and for injecting a fluid into said the gas turbine engine upstream from said compressor, wherein the fluid is configured to reduce electrostatic attraction within the gas turbine engine.

20 13. An engine washing system in accordance with Claim 12 wherein the fluid injected into the engine is an anti-static liquid configured to reduce electrostatic attraction within the gas turbine engine.

14. An engine washing system in accordance with Claim 13 wherein the fluid injected into the engine is configured to coat at least a portion of the engine to reduce electrostatic attraction within the gas turbine engine.

25 15. An engine washing system in accordance with Claim 13 wherein the anti-static liquid is injected into the engine after particulate matter has been removed from the engine.

16. An engine washing system in accordance with Claim 13 wherein the anti-static liquid is injected into the engine after the engine has been operated.